

Date: Thu, 3 Feb 94 19:42:02 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #109
To: Info-Hams

Info-Hams Digest Thu, 3 Feb 94 Volume 94 : Issue 109

Today's Topics:

 Access to VOA News by United States Residents (2 msgs)
 ARRL-QST/QEX was Re: RAMSEY FX
 BEGINNER! - Advice on Radio
 Dayton Parking: Hell on Earth!
 FCC: Whats taking so long???? (2 msgs)
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 STS-60 SAREX Flight Begins
 STS-60 SAREX Frequencies ...?
 US License Examination Opportunities Scheduled 2/03/94 to 5/30/94
 Will Wayne See His Shadow???

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 2 Feb 1994 16:18:28 GMT
From: voa3!ck@uunet.uu.net
Subject: Access to VOA News by United States Residents
To: info-hams@ucsd.edu

Since we announced the availability of the Voice of America and
Worldnet Television public Internet server a couple of days ago,
I have received a number of anxious emailed inquiries from
Americans regarding the disclaimer attached to the announcement:

In accordance with U.S. law, program materials such as the News and English Broadcasts newswire are provided exclusively for recipients outside the United States.

The restriction on domestic dissemination of VOA and Worldnet program materials applies to employees of VOA and Worldnet, and not to other residents of the United States. In other words, we may not actively attempt to transmit our programs or distribute our program materials to recipients within the United States. But anyone living in the United States who wants to take the initiative to listen to VOA or watch Worldnet or read the News and English Broadcasts newswire is free to do so, even though they are not the reason why we have radio broadcasts, television satellite feeds or a public FTP/gopher server on the Internet.

Here are some examples of how the law works:

- o VOA may not establish a network of affiliated radio stations inside the United States, as we have in many other countries. However, if a cable television provider wants to downlink VOA programs from a satellite and carry them on an audio channel -- as, indeed, one does here in Washington, D.C. -- the government may neither facilitate nor interfere with that activity.
- o Worldnet does not offer its television programs to American networks or stations. However, if an original Worldnet program is newsworthy, anyone who can receive it is free to rebroadcast it. (Obviously, this does not apply to copyrighted commercial programs that Worldnet distributes to other countries under licenses from their producers.)
- o Anyone in the United States can listen to a VOA shortwave broadcast or FTP a script from our public Internet server, and then redistribute that tape or script to anyone else in the United States. The broadcasts and the texts of the scripts are not intended for recipients within the United States, however, so please don't ask us to help you make copies of them.

I hope this allays some of the concerns that have been expressed about access to the materials on our public server by residents of the United States. Normally when I post a USENET article, I speak only for myself, but in this instance I have been authorized to provide this explanation on behalf of VOA and Worldnet by our Office of External Affairs.

If anyone wants to discuss this subject further with VOA and Worldnet, there is a list of public electronic mail addresses on our server (ftp.voa.gov). Probably the most appropriate one is pubaff@VOA.GOV. Please don't send mail to me; I'm already swamped.

--

Chris Kern ck@voa.gov ...uunet!voa3!ck +1 202-619-2020

Date: 2 Feb 1994 18:14:07 GMT
From: ucsnews!newshub.sdsu.edu!usc!howland.reston.ans.net!vixen.cso.uiuc.edu!
ux2.cso.uiuc.edu!ignacy@network.ucsd.edu
Subject: Access to VOA News by United States Residents
To: info-hams@ucsd.edu

The local nameserver does not know voa.gov. Can you provide the IP number?

Ignacy Misztal, N09E
University of Illinois

Date: 31 Jan 94 21:09:49 GMT
From: yuma!galen@purdue.edu
Subject: ARRL-QST/QEX was Re: RAMSEY FX
To: info-hams@ucsd.edu

In article <CKIEMA.KCq@srngenprp.sr.hp.com> alanb@sr.hp.com (Alan Bloom) writes:
>Greg Bullough (greg@netcom.com) wrote:
>: Yup. One of the difficulties, over the years, is that many of the
>: folks at ARRL HQ 'just didn't understand,' ...
>: The 'drum' being banged is one which rings out 'build build build.'
>If you're talking about QST, I disagree 100%. I wish QST had MORE
>construction articles, not fewer. In case you haven't noticed, QST
>has changed in the last few years. There are many fewer technical
>articles than there used to be and a lot more fiction and other
>"fluff" articles.
>I liked it better the old way. But fortunately or unfortunately,
>the ARRL is a democratic organization and their perception is that
>the members are not as technically inclined as they used to be.
>AL N1AL

I recently subscribed to QEX for the technical stuff, and there was a mention that some thought QEX was getting too technical, which left me flabbergasted, since I thought QEX was for tech stuff.
I would like to see more technical articles in every ham magazine.

Galen, KF0YJ

Date: 3 Feb 1994 21:01:59 GMT
From: news.cstar.andersen.com!news.acns.nwu.edu!casbah.acns.nwu.edu!
rdewan@uunet.uu.net
Subject: BEGINNER! - Advice on Radio
To: info-hams@ucsd.edu

In article <2969209710.2.p00936@psilink.com>,
F. Clayton Rote <p00936@psilink.com> wrote:
>Hi all:

>
>I have decided to dip my toe into the HAM radio hobby. I have a
>general idea of what I want but I want to make sure it is possible and
>that I purchase the correct equipment. I thought I would put the
>features I am looking for in a message and solicit any feedback.
>
>FEATURES:
>
> o Portable
>
> o 2 Meter and 440 (I have no idea what this means but I
> have been told by several operators that this is the way to go)
>
> o Scanning Functions
> - Civilian and Military Air (Air Shows)
> - Police and Fire
> - Weather
> - Cellular (for fun on Saturday nights)
>
<snip>

Or how about:
for \$100 or so
a heathkit hw99,
a heatkit hw101
for \$300 or so
drake r4/t4
kenwood ts520s
for a very small sampling of fine radios for a beginner.

These will get you out on five bands instead of just two. They come
with tone, sidetone that is, built in. Probably be cheaper too. I bet you
could work greater distances too.

Sorry. Could not resist. I would consider rigs by Standard for 2m/70cm

dual band radios. Their gear seems to be built well and well designed. The new mobile C5618DA (model no?) is very nice. It has very wide band receive. From 110Mhz to 174MHz on 2m receiver and 250MHz to 540MHz on the 70cm receiver. It has 7 modes of scanning and can have up to 200 memories. It is also 9600 baud packet ready.

Rajiv
aa9ch
r-dewan@nwu.edu

Date: 3 Feb 94 16:42:36 GMT
From: news-mail-gateway@ucsd.edu
Subject: Dayton Parking: Hell on Earth!
To: info-hams@ucsd.edu

I hafta agree with others that the traffic jam is going to be beyond description if no shuttle bus service is provided. Somehow the Hamvention organizers have to maintain some level of transport to outlying areas. I'm only one possible attendee, but I might consider not going this year if I don't have the ability to use a bus to get to the site. For those who choose to drive, they will probably never get there and back because of all those extra cars on the road. I would be willing to pay a 3 day fee for unlimited rides to help defray the cost just to have the buses. Did anyone think of that as an option? After paying for air fare to get to Dayton and \$100 per night for hotels etc., what's a few extra dollars?

Seth T. KC2WE

Date: 02 Feb 1994 15:40:22 GMT
From: ucsnews!sol.ctr.columbia.edu!news.cs.columbia.edu!mix-cs!
popovich@network.ucsd.edu
Subject: FCC: Whats taking so long????
To: info-hams@ucsd.edu

The Pyrotechnic <haga@zach.fit.edu> wrote:
>My god, ive been patiently waiting for my call sign to come in... it's been
>well over 9 weeks now, and it still hasn't arrived.

Some people here who took their tests from us on November 28th ('93) had their licenses arrive last week. That's a little under 9 weeks.

I'd expect your license to show up any day now. If it gets to 12 weeks and it still hasn't arrived, call your VEC, as an earlier poster said. Maybe you could call after 10 weeks, if you've noticed your

mailman fingering his can of Mace every time he walks up to your house. :-)

We've all experienced that "attack the mailman" feeling...

-Steve, WB3I

Date: 4 Feb 1994 02:38:33 GMT
From: news.service.uci.edu!uci.edu!mstrong@network.ucsd.edu
Subject: FCC: Whats taking so long????
To: info-hams@ucsd.edu

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In article <CKAM3v.I2M@zeno.fit.edu> haga@zach.fit.edu (The Pyrotechnic) writes:
>From: haga@zach.fit.edu (The Pyrotechnic)
>Subject: FCC: Whats taking so long????
>Date: Thu, 27 Jan 1994 14:40:43 GMT
>My god, ive been paitently waiting for my call sign to come in... it's been
>well over 9 weeks now, and it still hasn't arrived.... Does anyone know
>a number that i may call to check up to see if they have even issued it
>but maybe not have mailed it yet or something? im tired of waiting!!
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```
man it sucks doesnt it..... makes you call the FCC automaton/idiots every
name in the book.....
```

hang in there

mike kd6zwi :-)

Date: 2 Feb 1994 14:46:48 GMT
From: library.ucla.edu!europa.eng.gtefsd.com!news.umbc.edu!haven.umd.edu!cville-srv.wam.umd.edu!ham@network.ucsd.edu
Subject: Ham exam Saturday, U of MD
To: info-hams@ucsd.edu

The Univ. of MD ARA will be having ham exams this Saturday, Feb. 5, in the Student Union Building on the College Park campus of UMD. They will begin at 10 a.m., and the cost is \$5.60 (W5YI).

For more info call Scott Rosenfeld, NF3I, at 301-206-9921, or send email.

Scott

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--
73,      \ /  Long      Original      The
```

Scott Rosenfeld Amateur Radio NF3I Burtonsville, MD | Live \$5.00
WAC-CW/SSB WAS DXCC - 123 QSLed on dipoles _____| Dipoles! Antenna!

Date: 1 Feb 94 20:07:24 -0600
From: library.ucla.edu!agate!howland.reston.ans.net!sol.ctr.columbia.edu!
usenet.ucs.indiana.edu!voyager.gem.valpo.edu!exodus.valpo.edu!
acc_cal@network.ucsd.edu
Subject: Help With PK232!!
To: info-hams@ucsd.edu

Can anyone help me?

I have have the PK 232 and am having a hard time trying to get it to work. I have a few different TERM Programs but ther still do not talk to the PK232.

I have a DOS PC and have the cable hooked up to the big 25 pin serial port. The PK232 is hoked up with Radio 1 hooked up by the phone plug for Receive audio and the 8 or what ever pin gray cable to the Xmit PTT and Mike Audio.

When I plug it all in and power it up it starts to transmit a dead signal. If I disconnect the mike plug and try to receive nothing will appear on my Term.

When I power it up it will not even see the PK232. I am not sure what that problem is.

If anyone can help Plese do I am LOST!!!

Thank You Ahead of Time For Any HELP!!!

Chris Lewandowski KB9FUN

ACC_CAL@ EXODUS.VALPO.EDU

Date: Thu, 3 Feb 1994 19:27:44 GMT
From: loral!h1b@network.ucsd.edu
Subject: HTX202 belt clip
To: info-hams@ucsd.edu

Is the belt clip of the HTX202 used as a heat sink or can it be operated without the belt clip attached?

Thank you.
hlb@li.loral.com

--
hlb@li.loral.com

Date: 31 Jan 1994 21:28:29 GMT
From: metro!news.cs.su.oz.au!harbinger.cc.monash.edu.au!yeshua.marcam.com!
zip.eecs.umich.edu!caen!usenet.coe.montana.edu!netnews.nwnet.net!news.uoregon.edu!
fp2-st-affairs-11.@@munari.oz.au
Subject: More info: the DSP nobody mentioned
To: info-hams@ucsd.edu

Last week I described a DSP filter that several hams in the Eugene, OR area are now using. I also posted a short description about the filter which AI7W composed after we received several inquiries about the unit.

This morning I received the following message which might get your interest piqued a bit more:

After reading your description of Steve's filter, I went out to his place yesterday for a live demo. It's amazing! Why aren't these folks advertising in the ham mags? The filter plus program are less than the other popular DSPs I see.

Of course, it does have a couple disadvantages: you need a computer with considerable horsepower, and maybe VGA color monitor; and the filter and its control program are so interesting that I spent more time fiddling with it than I did listening!

73
W7KPZ

I have no affiliation with the company that makes this filter. I'm just amazed at what this unit does and how it does it. Steve gave this contact info:

The address and phone for Digital Interactive Signal Corp. is

Digital Interactive
2317 N.E. 168th Ave.
Vancouver, WA. 98684

206-256-8654

I don't think they're on the net.

good Luck Steve..AI7W

Hope this helps,

Steve/AA7FL

Date: 31 Jan 1994 10:11:13 -0700
From: news.sprintlink.net!agphx.agcs.com!not-for-mail@uunet.uu.net
Subject: QST Article on Balloon Tracking using GPS Rcvr
To: info-hams@ucsd.edu

In article <21870059@hplvec.LVLD.HP.COM>, tcline@hplvec.LVLD.HP.COM (Ted Cline) writes:

)
) In rec.radio.amateur.misc, hpeach@ca.uky.edu (Harold G. Peach Jr.) writes:
) > Several months ago there was an article in QST about a guy that was
) > tracking balloons using data from a GPS receiver, transmitted back to a
) > ground station. He had written a spreadsheet in MS-Excel that would
) > graph the balloon's flight path based on the points reported back by the
) > GPS receiver. Does anyone have a copy of his spreadsheet or the
) > algorithm he used? Please e-mail me at <hpeach@ca.uky.edu>.
) >

) > ---
) > Harold
) > hpeach@ca.uky.edu

)
)
) Paul Ternlund, WB3JZV created the Macintosh PowerBook Excel program to
) track the balloon's position as determined by the radio
) direction-finding tracking team. Paul's phone is 303-699-7479 and his
) email address is paul.ternlund@filebank.com .
)

) ----
) Ted Cline, NØRQV Home: 3202 Spruce Drive
) ted_cline@hplsla.lvld.hp.com Fort Collins, CO 80526-1044 USA
) (303) 493-1136

FYI, there is also moving map software available in the \$250 range for either the Mac or PC. Takes the GPS output and displays position and track on an image of the appropriate aeronautical sectional. It also does a few other neat tricks.

Ads can be found in Flying magazine as well as AOPA Pilot - probably many other flying mags.

--

Mike Pflueger, AG Communication Systems, Phoenix, AZ PP-ASEL
INTERNET: pfluegerm@agcs.com
UUCP:!{att | ncar!noao!enuucp}!gtephx!pfluegerm
Work: 602-582-7049 FAX: 602-582-7624 Packet: WD8KPZ @ K7BUC.AZ.USA.NA

Date: 3 Feb 94 23:11:21 GMT
From: news-mail-gateway@ucsd.edu
Subject: STS-60 SAREX Flight Begins
To: info-hams@ucsd.edu

SB SAREX @ AMSAT \$STS-60.001
STS-60 SAREX Mission Begins

3 February 1994 at 12:30 UTC

The Space Shuttle Discovery made a spectacular, historic, on-time liftoff this morning from the Kennedy Space Center. Discovery's launch marks the first joint U.S.-Russian Space Shuttle Flight. This will be the first of several joint missions planned in preparation for the development of the international Space Station. Cosmonaut Sergei Krikalev, U5MIR, was one of the six crew members on board this morning's Shuttle flight. His fellow American crew mates include Commander Charlie Bolden, KE4IQB, Pilot Ken Reightler, and Mission Specialists Jan Davis, Ron Sega, KC5ETH, and Franklin Chang-Diaz. The primary payloads on-board Discovery are the Wake Shield Facility, which will be deployed and retrieved during the flight and the Spacehab facility. Of particular interest to radio amateurs is the Shuttle Amateur Radio Experiment (SAREX) secondary payload. SAREX information for STS-60 including frequencies, callsigns and Keplerian elements, follows:

STS-60 Shuttle Amateur Radio Experiment (SAREX)
Information Sheet

Mission: STS-60 Space Shuttle Discovery
Wake Shield Facility & Spacehab-2 Mission

Launch: February 3, 1994, 12:10 UTC

Orbit: 57 degree inclination

Mission Length: 8 days (Nominal)

Amateur
Radio

Operators: Charlie Bolden, KE4IQB, Ron Sega, KC5ETH,
Sergei Krikalev, U5MIR

Modes: FM Voice
Prime callsign: KE4IQB

Packet Radio
Callsign: W5RRR-1

Frequencies: All operations in split mode. Do not transmit on
the downlink frequency.

Voice Freqs: Downlink: 145.55 MHz (Worldwide)
Uplinks: 144.91, 144.93, 144.95, 144.97, 144.99 MHz
(Except Europe)
144.70, 144.75, 144.80 MHz (Europe only)

Note: the crew will not favor any specific uplink
frequency, so your ability to work the crew will
be the "luck of the draw"

Packet Freqs: Downlink: 145.55 MHz
Uplink: 144.49 MHz

Info: Goddard Amateur Radio Club, WA3NAN, Greenbelt Maryland,
SAREX Bulletins and Shuttle Retransmissions
3860 KHz, 7185 KHz, 14,295 KHz, 21,395 KHz, 28,650 KHz
and 147.45 MHz (FM)

Johnson Space Center ARC, W5RRR, Houston, Texas
SAREX Bulletins
7225 KHz, 14,280 KHz, 21,395 KHz, 28,650 KHz, (SSB)
and 146.64 MHz (FM)

ARRL Amateur Radio Station, W1AW, Newington, CT
SAREX News Bulletins
3990, 7290, 14,290, 18,160, 21,390, and 28,590 KHz
and 147.555 MHz (FM)

Also, bulletins available on internet, via AMSAT ANS,
Compuserve, and your local PBSS.

School Group Participation: 5 school groups will participate in SAREX with pre-scheduled direct and telebridge contacts. These include 4 in the U.S., and one in Russia.

Keplerian Elements:

The following Keplerian Elements are provided by Gil Carman, WA5NOM at the Johnson Space Center ARC. Since the Shuttle Discovery had an on-time, nominal orbit injection sequence, these orbital elements will be accurate to within a few seconds for today.

Satellite: STS-60

Catalog number: 00060

Epoch time: 94034.56756353 (03 FEB 94 13:37:17.49 UTC)

Element set: 004

Inclination: 57.0033 deg

RA of node: 215.8607 deg Space Shuttle Flight STS-60

Eccentricity: .0010675 Prelaunch Element set JSC-004

Arg of perigee: 264.1500 deg Launch: 03 FEB 94 12:10 UTC

Mean anomaly: 95.8328 deg

Mean motion: 15.72291901 rev/day Gil Carman, WA5NOM

Decay rate: 3.3600e-04 rev/day*2 NASA Johnson Space Center

Epoch rev: 2

Checksum: 254

Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group

/EX

Date: Wed, 02 Feb 1994 13:00:15 -0500

From: ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!europa.eng.gtefsd.com!

NewsWatcher!user@network.ucsd.edu

Subject: STS-60 SAREX Frequencies ...?

To: info-hams@ucsd.edu

Hi,

I know this question has been probably posted a zillion times, but I am looking for the uplink and downlink frequencies of the shuttle. Does any have the current uplink & downlink freq's ...???? I would like to see if I will be able to hear them from aboveThanx de Keith

Date: Thu, 3 Feb 1994 13:56:46 MST

From: destroyer!nntp.cs.ubc.ca!alberta!ve6mgs!usenet@uunet.uu.net
Subject: US License Examination Opportunities Scheduled 2/03/94 to 5/30/94
To: info-hams@ucsd.edu

AMATEUR RADIO EXAMINATION OPPORTUNITIES

Special Note: A New FCC Form 610 must be used for applications submitted to the FCC beginning March 1, 1994. Your local VE Team will usually have the form you will need. Contact them in advance.

Note: Amateur Radio licenses usually arrive between 8 and 10 weeks after the test session. The FCC considers their processing time to be 90 days--from the date they receive the application. The FCC usually receives the application one to two weeks after the test session (once the VE Team and the coordinating VEC have completed their processing).

Note: Codeless Technician to Technician w/HF upgraders (who pass a Morse code test) will not receive a new license from the FCC. The existing Technician license plus the CSCE conveying the Morse code test credit is the only documentation issued for use of the additional HF privileges.

The following test session information is provided by the ARRL/VEC for the upcoming six to eight week period. For further information, please contact the test session CONTACT PERSON at the telephone number provided. If necessary, you may contact the ARRL/VEC at 203-666-1541 x282 for additional information. Electronic mail may be forwarded to the ARRL/VEC via USENET at "bjahnke@arrl.org" or via MCI Mail to MCI ID: 215-5052.

Although the test session information presented here does not indicate whether walk-ins are accepted or not, most test sessions do allow walk-ins. We encourage you, however, to always contact the CONTACT PERSON at the telephone number provided so that the VE Team is aware that you be attending the test session.

STILL NEED TO PREPARE FOR YOUR EXAM?

If you would like information on how to become licensed; or how to locate Amateur Radio clubs, instructors, licensing classes and/or Novice examiners in your area; please contact the ARRL Educational Activities Department (EAD) at 203-666-1541 x219. The EAD can also provide information on recommended study materials. Electronic mail may be forwarded to the ARRL EAD via USENET at "rwhite@arrl.org" or via MCI Mail to MCI ID: 215-5052.

EXAM LISTINGS - DEFINITION OF FIELDS

STATE

Test Date, VEC, City, , Contact Phone, Contact Person

The SECOND field in the following listing specifies the VEC which is coordinating this examination. This single-character designator denotes the VEC as defined below. An "A" (for example) indicates that this examination is coordinated by the ARRL/VEC.

For further information on any examinations listed, or if you do not find any examinations listed for your area, you may contact any of the coordinating VECs below.

A = ARRL/VEC, 225 Main St, Newington, CT 06111; (d) 203-666-1541
The 1994 test fee is \$5.75.

X = Anchorage ARC, 2628 Turnagain Parkway, Anchorage, AK 99517;
(d) 907-786-8121, (n) 907-243-2221 (or) 907-276-5121
(or) 907-274-5546

C = Central Alabama VEC, 1215 Dale Dr SE, Huntsville, AL 35801;
205-536-3904

N = Charlotte VEC, 227 Bennett Ln, Charlotte, NC 28213;
704-596-2168

D = Great Lakes ARC VEC Inc., PO Box 273, Glenview, IL 60025;
708-486-8019

E = Golden Empire ARS, PO Box 508, Chico, CA 95927; No phone.

G = Greater Los Angeles ARG, 9737 Noble Ave, Sepulveda, CA 91343;
818-892-2068, 805-822-1473.

J = Jefferson ARC, PO Box 24368, New Orleans, LA 70184-4368;
504-831-1613. Test fee for 1994 is \$5.00.

K = Koolau ARC, 45-529 Nakuluai St, Kaneohe, HI 96744;
808-235-4132

L = Laurel ARC Inc., PO Box 3039, Laurel, MD 20709-0039;
(d) 301-572-5124, 301-317-7819, (n) 301-588-3924

M = The Milwaukee RAC Inc., 1737 N 116th St, Wauwatosa, WI 53226;
414-774-6999. Test fee for 1994 is \$5.00.

H = Mountain ARC, PO Box 10, Burlington, WV 26710; 304-289-3576,
301-724-0674

P = PHD ARA Inc., PO Box 11, Liberty, MO 64068; 816-781-7313

R = Sandarc-VEC, PO Box 2446, La Mesa, CA 91943-2446; 619-465-3926

S = Sunnyvale VEC ARC, PO Box 60307, Sunnyvale, CA 94088-0307;
408-255-9000

T = Triad Emergency ARC, 3504 Stonehurst Pl, High Point, NC 27265;
919-841-7576

W = Western Carolinas ARS VEC, 5833 Clinton Hwy - Suite 203,
Knoxville, TN 37912-2500; 615-688-7771.
The 1994 test fee is \$5.75.

5 = W5YI-VEC, PO Box 565101, Dallas, TX 75356-5101; 817-461-6443
The 1994 test fee is \$5.75.

EXAMINATION OPPORTUNITIES OUT

02/05/94,A,Australia,,089-531-305,Maury Hatfield
03/12/94,A,Belgium,,32-11439164,Ronald A.L. Torfs
02/26/94,A,Germany,,49-0-67253462,Stephen Hutchins, KN6G

*EOF

Date: 2 Feb 94 14:31:44 GMT
From: pitt.edu!hpb.cis.pitt.edu!hpb@uunet.uu.net
Subject: Will Wayne See His Shadow???

To: info-hams@ucsd.edu

If Wayne Greene sees his shadow on Groundhog Day, does that mean we'll have 6 more years of bad sunspots? :-) :-) :-)

Harry Bloomberg WA3TBL
hpb+@pitt.edu

End of Info-Hams Digest V94 #109

